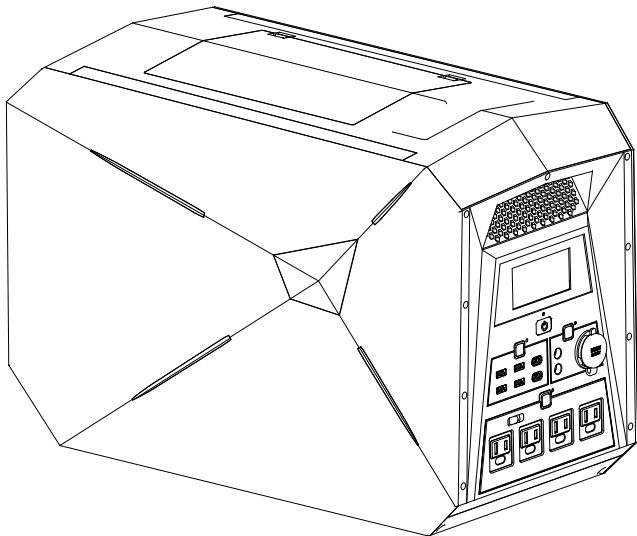


User Manual

Leoch Portable Power Station



DISCLAIMER

To use the product correctly and properly, make sure you have read the user manual, all safety tips, instructions, warning messages, terms of use, and disclaimers carefully before using. The inappropriate operation could result in serious injury to the user or others, or damage to property or products. All terms and content of this document are considered understood, recognized, and accepted once you begin using this product. Users take full responsibility for all usage and operations. In the event the user fails to use the product in accordance with the User Manual, the company("Leoch") is not liable for any damages caused. In compliance with laws and regulations,Leoch holds the final explanation right of this document and all related documents of the product. For the latest product information, please visit Leoch's official website at **us.leoch.com**. Products may be updated, revised, or discontinued without prior notice.

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1. Safety Instruction

1.1 Usage Guide

1. When using the product, please strictly follow the operating environment temperature specified in this user manual. Do not use the product near a heat source, such as a fire source or a heating furnace. If the temperature is too high, it may result in a fire or explosion; if the temperature is too low, the product performance may be severely reduced, or the product may cease to work.
2. Liquids should be avoided. Avoid immersing the product in water or getting it wet. The product should not be used in humid or rainy environments. In the event that the product falls into the water during use, please place it in a safe open area and do not operate until it is completely dry. In accordance with Section 1.2 below, the dried product should not be reused and should be disposed of properly. If the product catches fire, it is recommended to use dry powder and carbon dioxide fire extinguishers.
3. Do not use the product in an environment with strong static electricity/magnetic fields.
4. Do not disassemble the product in any way or pierce the product with sharp objects.
5. Avoid using wires or other metal objects that may result in a short circuit.
6. Do not use unofficial components or accessories. If you need to replace any components or accessories, please contact support@leoch.net to get further help from the official professionals.
7. Do not lock the fan forcibly during use or place the product in an unventilated or dusty area.
8. Please avoid impact, falls, or severe vibrations when using or transporting the product. In case of a severe external impact, turn off the power supply immediately and stop using the product.
9. Rest the product on a flat surface to prevent damage from falling over. In the event that the product is overturned and severely damaged, turn it off immediately and stop using the product, place it in an open area, keep it away from combustible materials and people, and dispose of it in accordance with local laws and regulations.
10. Do not move the product during use. Movements may lead to poor contact with the output ports of the product.
11. If the product input or output ports are dirty or if it needs to be cleaned, please wipe the product with a dry, soft, clean cloth or paper towel after it has been turned off.
12. Be sure to check the product's integrity and the integrity of the accessories before each use. If the product or the accessories are damaged or broken, do not use them.

13. During thunderstorms or stormy weather, please disconnect the AC charging or solar charging. If the product is struck by lightning, it may cause electric shock, fire, and other accidents.
14. Ensure that the product is kept out of reach of children and pets.

1.2 Disposal Guide

1. If conditions permit, make sure that the battery is fully discharged before disposing of it in a designated battery recycling bin. The product contains batteries with potentially harmful chemicals, it is strictly prohibited to dispose of it in ordinary trash cans. For more details, please follow the local laws and regulations on battery recycling and disposal.
2. If the battery cannot be fully discharged due to a product failure, please do not dispose of the battery directly in the battery recycling bin. In such a case, you should contact a professional battery recycling organization for further processing.

2. Specifications

General Information

Cell Chemistry	LiFePO4 Cell
Cycle Life	3000 Cycles to 80%+ Capacity
Capacity	25.6V 80AH 2048Wh
Dimensions	503*288*347mm
Net Weight	Approximately 68.3lbs (31KG)
Certifications	FCC, CE, Rohs, PSE
UPS	Switchover time <10ms
Protection	Over Voltage Protection, Overload Protection, Over Temperature Protection, Short Circuit Protection, Low Temperature Protection, Low Voltage Protection, Overcurrent Protection Over Charge Protection, Over Discharge Protection

Output Ports

AC (x4)	Pure Sine Wave, 2000W total (surge 4000W), 115V~, 50/60Hz
USB-A (x2)	5V 2.4A 12W, per port
USB-A Fast Charge (x2)	20V 3A 60W, per port
USB-C (x2)	20V 5A 100W, per port
Cigarette Lighter Output	12V 8A 96W
DC 5.5mm Output (x2)	12V 3A 36W, per port

Input Ports

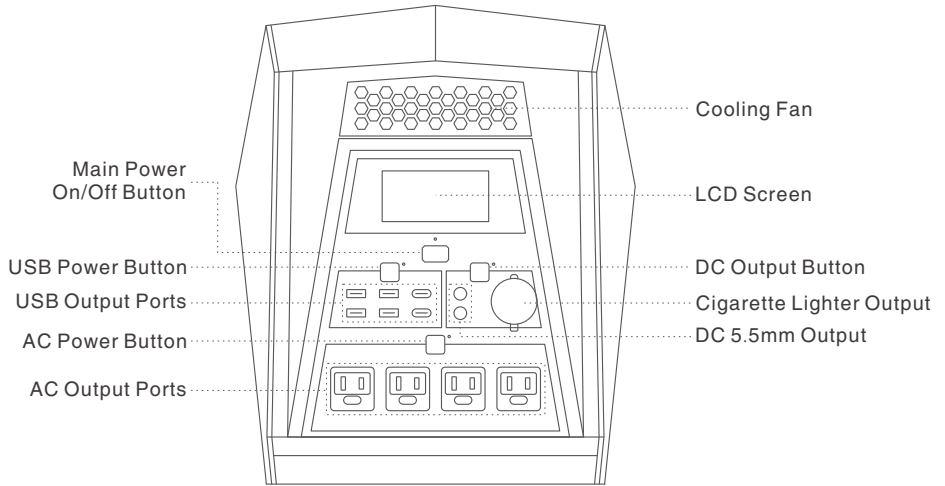
AC Charge	1000W max, 50/60Hz, 96-135V~
Solar Input	600W max, 11V-70V DC, 25A max, MPPT
Solar/Car Input Port Type	Anderson

Environmental Operating Temperature

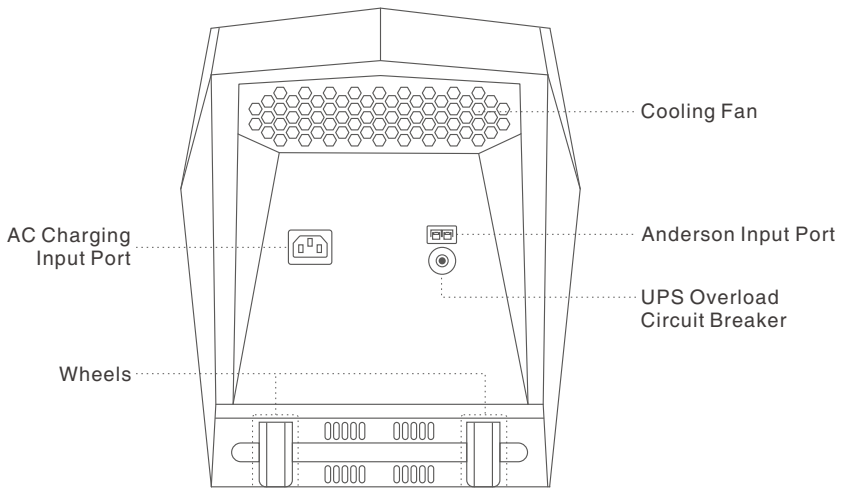
Optimal Operation Temperature	68°F-86°F
Storage Temperature	-4°F-113°F
Charging Temperature	32°F-113°F
Discharging Temperature	-4°F-113°F

3. Getting Started

3.1 Product Details

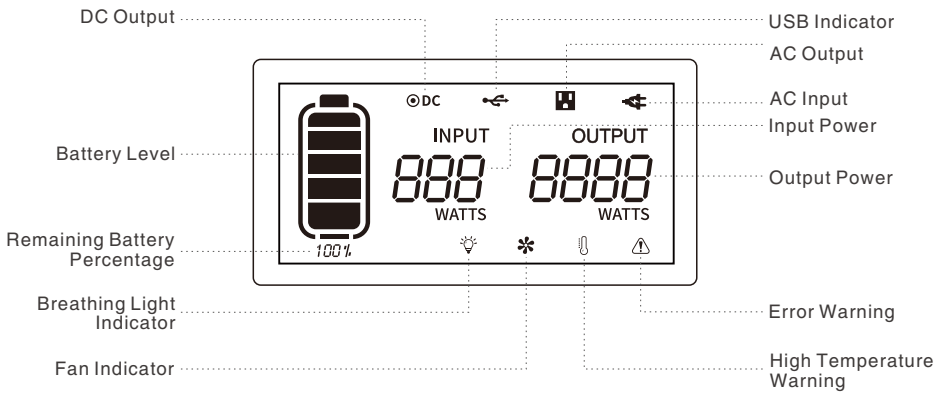


Front

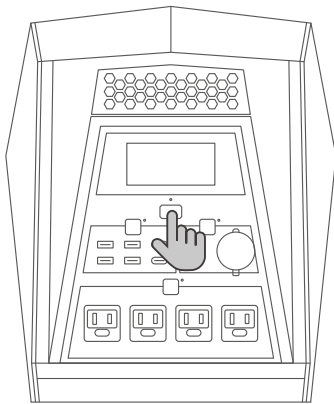


Back

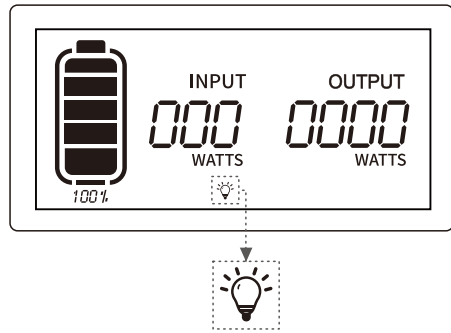
3.2 LCD Screen



3.3 Power On/Off



Turn the Power On or Off



Breathing Light Enabled

Press and hold the Main Power Button for 3 seconds to turn the product on or off.

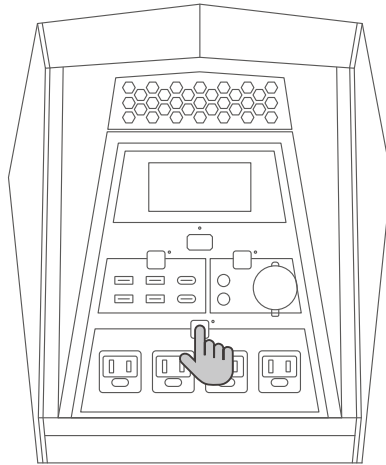
When the LC-9820 is turned on, quickly double-press the Main Power Button to turn the breathing light on or off. The LED light cycles continuously from dark to bright and back to dark while charging or discharging.

3.4 Product Output Guide

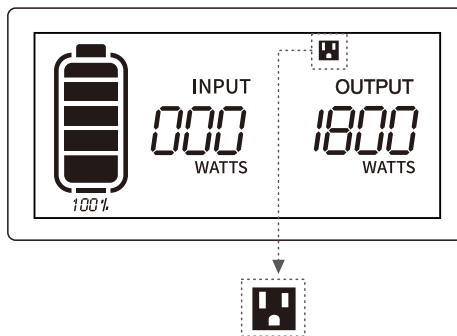
Before using the product, please make sure the main power has been turned on.

3.4.1 AC Output

Short press the AC Output Button to turn the AC output on or off. AC output will be indicated on the screen when it is enabled. When not in use, please turn off the AC output to avoid unnecessary power loss.



Short Press AC Power Button

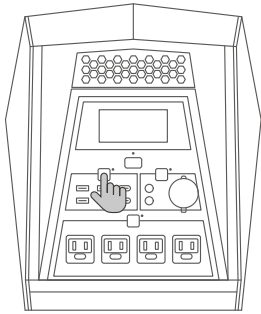


AC Output Enabled

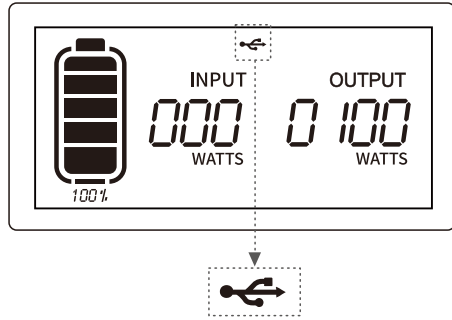
3.4.2 USB Output

Short press the USB Output Power Button to turn the USB Output on or off. USB output will be indicated on the screen when it is enabled. With 2 x 12W USB-A ports, 2x 60W USB-A fast charging ports, and 2 x 100W Type-C fast charging ports, the product supports most fast-charging protocols.

Note: Only if the USB output exceeds 5W, the USB current output wattage will be displayed on the screen.



Short Press USB Power Button

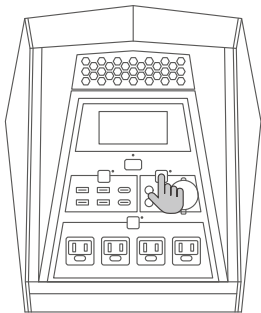


USB Output Enabled

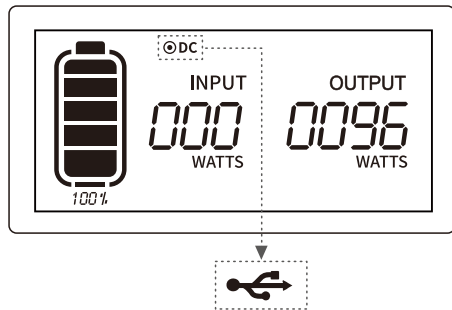
3.4.3 12V DC Output

Short press the DC Output Button to turn on or off DC output. DC output will be indicated on the screen when it is enabled.

Note: Electrical devices that exceed the rated wattage of the product will trigger a overcurrent protection and stop the DC output.



Short Press DC Output Button



12V DC Output Enabled

3.5 Product Input Guide

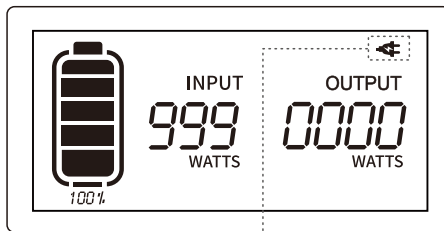
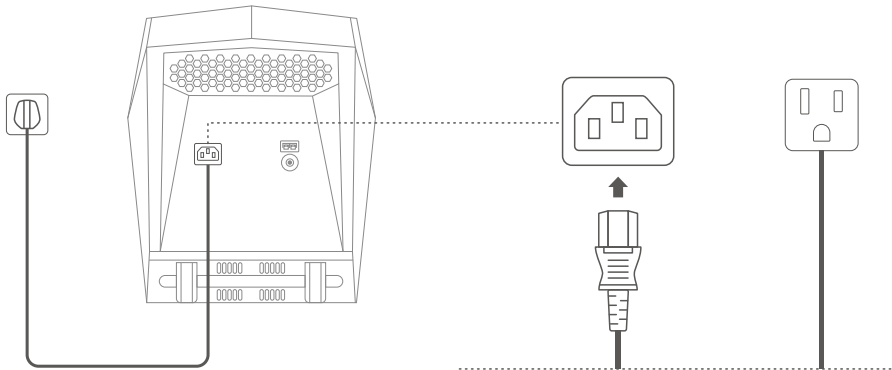
3.5.1 AC Charging

The intelligent fast-charging technology of LC-9820 supports a perpetual AC input power of 1000W.

The smart charging system will preferentially harness solar power whenever the LC-9820 is being recharged simultaneously by AC power and solar power.

e.g.

During simultaneous solar and AC charging, if the solar power is 300W, LC-9820 will automatically adjust the AC charging to 700W. If the solar power rises to 600W during the midday sun, the LC-9820 will drop the AC charging to 400W to make maximum use of solar power.



AC Input Indicator

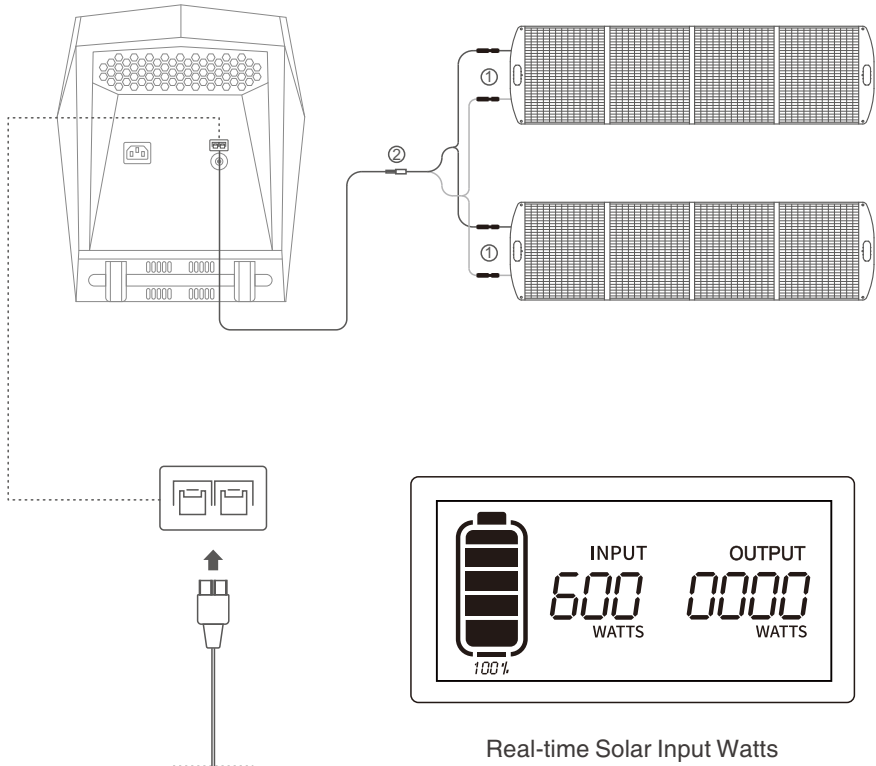
Please use the official Leoch cable for AC charging. Directly plug the product through an AC cable into the wall outlet that supports a current over 10A. Leoch is not responsible for any damage caused by using unofficial matching charging cables or operating the product otherwise than according to specifications.

3.5.2 Solar Charging

Note: LC-9820 comes with a built-in 600W MPPT. Do not use solar panels with extra MPPT. By using unofficial charging cables and by operating non-standardly, Leoch is not responsible for any damage.

3.5.2.1 Parallel Connection

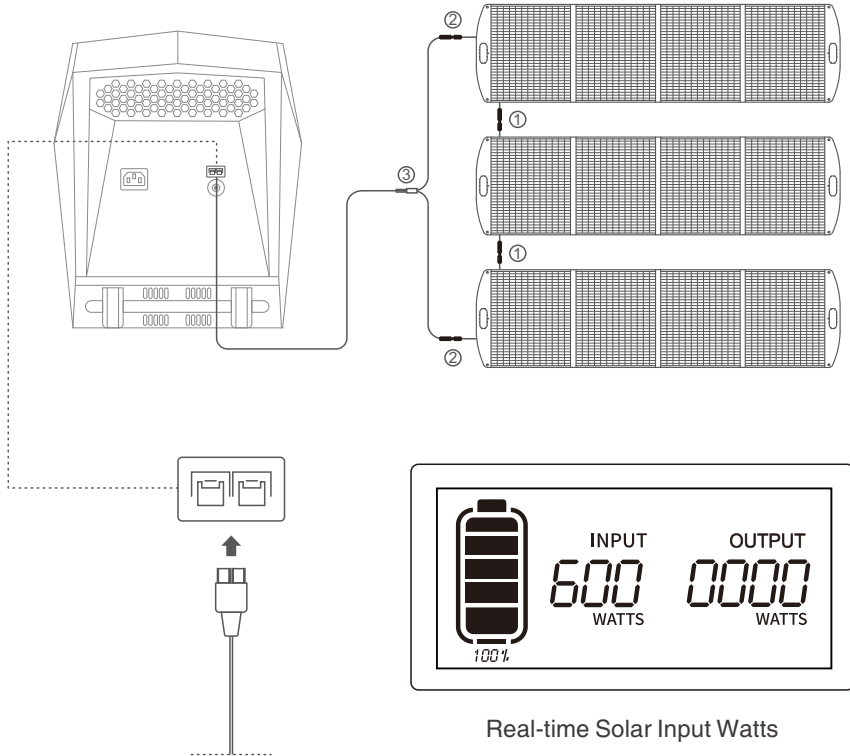
1. Connect the solar panels to the MC4 to Anderson Connection Cable by joining all positive terminals to the negative terminals of each other.
2. Plug the MC4 to Anderson Connection Cable into the Anderson Input Port of the product.



Note: Solar panels should have the same voltage between 10-70V with a maximum power of 600W in total.

3.5.2.2 Series Connection

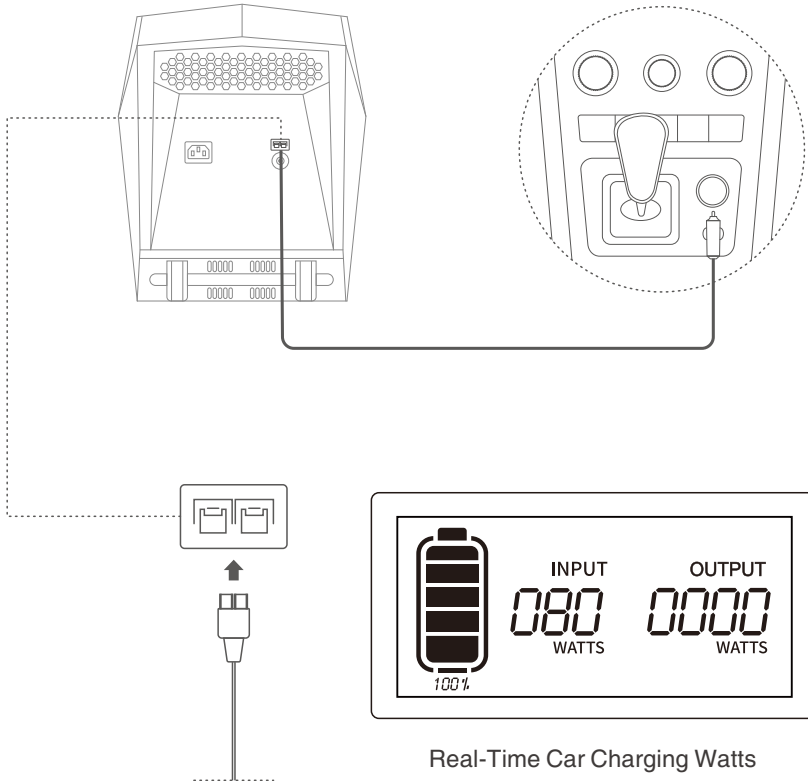
1. To wire solar panels in series, connect the positive terminal on the first panel to the negative terminal on the next, and so on. You would be left with one free positive terminal and one free negative terminal.
2. Connect these free terminals to the MC4 to Anderson Connection Cable.
3. Plug the MC4 to Anderson Connection Cable into the Anderson Input Port of the product.



Note: Multiple solar panels with a total voltage of 70V and total power of 600W can be connected in series. The maximum series voltage of solar panels is 70V.

3.5.3 Car Charging

Users can charge the product through the cigarette lighter port. Be sure to ignite the vehicle before using the car charger in case the car battery loses power and will not start. Meanwhile, users should check the 12V Anderson Input Port, car charging cable, and cigarette lighter for good contact. In the event that the standard operation is not followed, Leoch will not be held liable for any losses resulting therefrom.

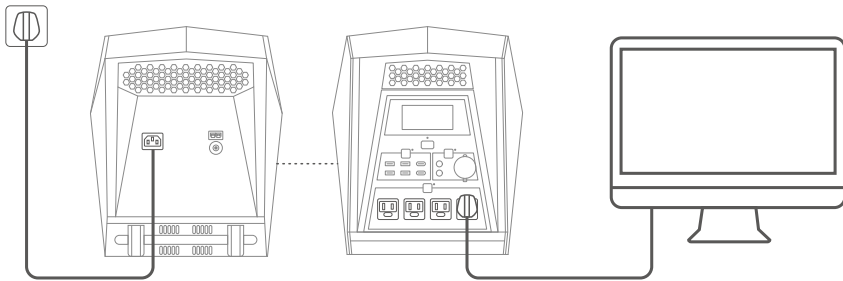


3.6 Uninterrupted Power Supply (UPS)

LC-9820 supports UPS. After plugging the LC-9820 into the grid power through the AC Input Port, you can charge electrical devices through the AC Output Ports of LC-9820 (In this situation, AC power will come from the grid rather than the LC-9820).









When a sudden blackout occurs, LC-9820 automatically switches to uninterrupted power supply mode within 10ms(Millisecond). Electric devices can automatically be charged by grid power after the grid power is restored. LC-9820 supports an uninterrupted power switchover mode.








UPS Care Technology will protect against overload if LC-9820 is used in UPS mode when charging devices exceed 2000W. Please refer to Section 4. Troubleshooting below.



Note: The UPS of the LC-9820 does not support 0ms switching. Please do not connect LC-9820 to any device that requires 0ms UPS, such as data servers and workstations. It is recommended that you test and confirm the compatibility of LC-9820 with your devices before using the UPS function. To avoid overload protection, we recommend only charging one device at a time rather than using multiple ones simultaneously. Leoch takes no responsibility for any device failures or data losses caused by failures to follow instructions.

4. Troubleshooting

Indicator/Content	Problem	Solution
 Overload Protection Breaker pops up.  Icon flashes.  Icon stays on.	UPS Overload	Remove the overload devices and turn off the AC output. One minute later, press the UPS Circuit Breaker. Normal operation will be resumed after turning on the AC output again.
 Icons are not displayed. AC input wattage can't be displayed, and AC charging fails.	AC Input Failure	Check the connection between the main socket and the LC-9820, as well as the connection between the main socket and the AC charging cable.
 Battery Level Bar does not scroll. LC-9820 can not be charged by either the solar panel or the car input.	DC Input Failure	Check and make sure the DC input is connected with the correct polarity. Check whether the solar panel or car lighter port works properly.
 Icon flashes. LC-9820 can not be charged through the solar panel, the car input, or the AC charging port.	Discharging Overheat Protection	Remove LC-9820 from a high-temperature environment. Let the LC-9820 cool down and then recharge it.
	Discharging Low-Temperature Protection	Remove LC-9820 from a low-temperature environment. After the battery temperature rises to 41°F and above, restart LC-9820 without connecting to other devices.
The buttons do not respond after the main power is on.	Battery Failure	Contact Leoch Support Team.
	System Halted	After discharging the power station until the battery is drained, recharge the LC-9820 and restart it.
 Icon stays on.	Battery Communication Error	Please stop AC charging or solar charging, then turn off the main power and restart the LC-9820. If the error hasn't been fixed, please contact Leoch Support Team.
 Icon stays on.	Inverter Communication Error	Please stop AC charging or solar charging, then turn off the main power and restart the LC-9820. If the error hasn't been fixed, please contact Leoch Support Team.
Real-time AC output watts can't be displayed.	AC Output Failure	Please contact Leoch Support Team.

Indicator/Content	Problem	Solution
 Icon flashes.  Icon stays on. The AC output port cannot power the device normally.	AC Output Overload Protection	Remove the overloaded devices and then restart the LC-9820. Electrical devices should be used within rated wattage.
 Icon flashes.  Icon stays on. The AC output port cannot power the device normally.	Over Temperature Protection	Please confirm whether the fan inlet and outlet are not blocked.
 Icons are flashes together.	Battery High-temperature Protection	Remove LC-9820 from a high-temperature environment. Let the LC-9820 cool down and then recharge it.
 Icon flashes.  Icon stays on. The AC output port cannot power the device normally.	AC Output Short Current Protection	After removing the devices, restart the LC-9820 to check if normal operation has resumed. After that, if the LC-9820 is working normally, please check your devices, and if not, please contact Leoch's support team.
USB-A Output Failure.	USB-A Overload Protection	USB-C output will be resumed automatically after you remove the overloaded device and restart LC-9820. Do not use electrical devices that exceed the rated power of LC-9820.
USB-C Output Failure.	USB-C Overload Protection	USB-C output will be resumed automatically after you remove the overloaded device and restart LC-9820. Do not use electrical devices that exceed the rated power of LC-9820.
LC-9820 can't be charged.	Charging Overheat Protection	Remove LC-9820 from a high-temperature environment. Recharge it after it cools down.
	Charging Low-Temperature Protection	Remove LC-9820 from a low-temperature environment. After the battery temperature rises to 41°F and above, restart LC-9820 without connecting to other devices.

Indicator/Content	Problem	Solution
<p>LC-9820 is unable to discharge when the battery has power left and no other errors occur.</p>	<p>Discharging Overheat Protection</p>	<p>Remove LC-9820 from a high-temperature environment. Give it 2hrs to cool down and then restart LC-9820 without connecting to other devices.</p>
	<p>Discharging Low-Temperature Protection</p>	<p>Remove LC-9820 from a low-temperature environment. After the battery temperature rises to 10.4°F and above, restart LC-9820 without connecting to other devices.</p>
<p>OUTPUT E1 WATTS</p>	<p>Battery Over Voltage</p>	<p>Please discharge LC-9820 via the DC Output Port or USB-C Port.</p>
<p>OUTPUT E2 WATTS</p>	<p>Battery Low Voltage</p>	<p>Please recharge LC-9820 with grid power through the AC Input Port.</p>
<p>OUTPUT E4 WATTS</p>	<p>Input Grid Voltage Abnormal</p>	<p>The grid power should be replaced with the correct voltage if the input voltage requirements of the product are not met.</p>
<p>OUTPUT E5 WATTS</p>	<p>Input Grid Frequency Abnormal</p>	<p>Disconnect LC-9820 from the grid and turn it off. Then reconnect LC-9820 to the grid and restart it. The indicator "E5" will display for 3 seconds before LC-9820 learns the current electrical frequency. If the indicator "E5" remains on after 5 seconds, please check the electrical frequency.</p>
<p>OUTPUT E6 WATTS</p>	<p>Inverter Output Voltage Abnormal</p>	<p>Please contact Leoch Support Team.</p>
<p>OUTPUT E9 WATTS</p>	<p>Inverter Failure</p>	<p>Please contact Leoch Support Team.</p>
<p>OUTPUT E10 WATTS</p>	<p>Solar Input Over Voltage</p>	<p>Please use the solar panel(s) with a voltage of 11V-70V DC.</p>
<p>OUTPUT E11 WATTS</p>	<p>Solar Input Over Current</p>	<p>Please use the solar panel(s) within the input wattage of 600W.</p>

5. FAQs

1. What devices can LC-9820's AC output port power?

With 2000W rated wattage and 4000W peak power, the product's AC output port can power most household appliances. Before you use it, we recommend that you confirm the power of the appliances first and ensure the power sum of all loaded appliances is lower than the rated wattage.

2. How long can LC-9820 charge my devices?

The LCD screen of LC-9820 will display the power level and the use time. The actual power consumption depends. Users can estimate the power supply time through the rated power of the devices.

3. How can I know if LC-9820 is charging?

While charging, the LCD screen displays a scrolling battery power bar. The battery percentage will gradually increase, and the input power will be displayed.

4. How to store LC-9820?

Before storing, please turn off the product first, and then store it in a dry, ventilated place at room temperature. Do not place it near water sources. For long-term storage, please discharge the battery to 30% and recharge it to 60% every three months to extend its battery life.

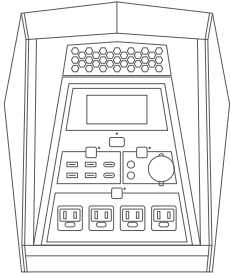
5. Can I carry on board?

No.

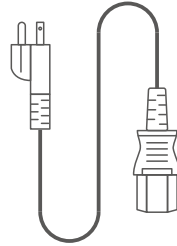
6. Maintenance & Storage

1. Please use or store the product in an environment temperature between 68°F to 86°F, away from water, intense heat, and other sharp objects.
2. If the remaining battery is less than 1% after you finish using the product, please recharge it to 60% before storing it. If the product is left idle for a long time with a severely low battery, irreversible damages may be caused to the battery cell and the product's service life will be shortened.
3. For long-term storage, please check the battery level of the product every three months. If the battery level is lower than 30%, please recharge it to 60% before storing.
4. If LC-9820 has been idle for too long and the battery is severely low, it will enter hibernation mode. In such case, please recharge before use.

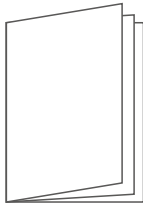
7. What's in the Box



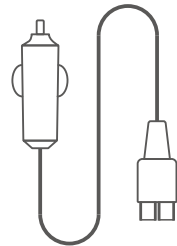
LC-9820 x 1



AC Charging Cable x 1



User Manual x 1



Car Charging Cable x 1

